DOCUMENT RESUME

ED 176 350 CS 502 620

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TITLE Measuring Issue Agendas in Agenda-Setting Research.
PUB DATE May 79
NOTE 32p.; Paper presented at the Annual Meeting of the International Communication Association (Philadelphia, Pennsylvania, May 1-5, 1979)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Interpersonal Relationship; *Measurement; *Measurement Techniques; Personal Interests; *Public Opinion; Research; Social Problems; Social Relations
IDENTIFIERS *Agenda Setting; *Communication Research

ABSTRACT

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Measuring Issue Agendas in Agenda-Setting Research

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Abstract

Using a sample from a homogeneous population, this study examined the distinction between intrapersonal and interpersonal issue agendas, and the use of open-ended questions, paired comparisons, and semantic differentials to measure respondent agendas. The study found measurable differences between intrapersonal and interpersonal issue agendas on on both the individual and aggregate levels. The three measurement techniques were found to produce consistent interpersonal agendas, but a lack of consistency across the three measures for intrapersonal agendas indicated that choice of technique could affect the measurement of issue agendas.

Measuring Issue Agendas in Agenda-Setting Research

In a critique of agenda-setting research, Semlak and Williams (1977) pointed out that the concept of personal agenda has been measured using at least four different techniques: (1) open-ended questions about issues; (2) rank orderings of issue lists; (3) n-point semantic differential scales (ranging from three to seven choices); and, (4) paired comparisons. The two authors also noted that such a wide variety of measurement techniques invited scholarly comparisons of the strengths and weaknesses of the different techniques.

Comparability among such different techniques has been a long-standing issue among scholars and has been summarized succinctly by Selltiz, Wrightsman, and Cook (1976). The three authors identify as open-ended the questions which are designed to elicit a free response from a respondent by presenting a topic, but not providing any structure for the respondent's reply. The advantages of such an approach are that it enables the respondent to answer in his or her own terms and minimizes the possibility of injecting the researcher's own biases into the study. The disadvantage of such an approach, however, is that responses are so varied that they do not lend themselves to easy (and inexpensive) analysis.

Consequently, many researchers opt for fixed alternative questions, which provide a uniform frame of reference to which the subject can respond. The advantages of such an approach are the comparability of data across subjects, clarifications of meanings or dimensions which the researcher wishes to examine, and ease (and inexpense) of data analysis. However, the disadvantage of the fixed alternative approach is that the experimenter's own biases can be injected into the study through the

structuring of the questions themselves. Rank ordering of lists, n-point semantic differentials, and paired comparisons are all fixed alternative techniques.

Given agenda-setting's long-standing assertion that increased salience of a topic in the communications media increases the salience of that topic among the public, the notion that a researcher's questionnaire could set the agendas of a study's respondents makes the problem of open-ended versus fixed alternative questions particularly apt in agenda-setting research. If the agenda-setting concept works for public communications media with these media raising saliences by commending topic to the public's attention, the smaller scale mediation of the interview questionaire could also be expected to raise topic saliences, particularly if those topics were highlighted by fixed alternative questions.

Scholarly research has been extremely limited in this area, however. McCombs (1974) compared three forms of open-ended questions: (1) what the respondent perceived as the major problems and issues facing the United States (general); (2) which of these problems the respondent perceived as most important to him or her personally (intrapersonal); and, (3) which of the problems the respondent had talked about most often with others (interpersonal). Although the three forms were not significantly different on the aggregate level, McCombs (1974) noted that the three forms were not identical on the individual level. The general question overlapped the intrapersonal question by 48.1% and the interpersonal question by 61.5%; and the intrapersonal and interpersonal questions overlapped each other by 86.7%. Although these overlaps were relatively high, the findings indicated some degree of difference among all three forms of the question.

In a replication and extension of McCombs's findings, Semlak and Williams (1977) compared open-ended and fixed alternative questions in agenda-setting research by using open-ended questions and a five-point semantic differential scale. The authors used open-ended questions along both the intrapersonal and interpersonal dimensions, but used fixed alternative questions only along the intrapersonal dimension. In analyzing the data, Semlak and Williams (1977) replicated McCombs's finding that the open-ended questions led to highly similar intrapersonal and interpersonal agendas in the aggregate: Semlak and Williams's open-ended aggregate agendas correlated a 0.91 using Spearman's rho for rank-ordered data. A more interesting finding, however, was that the open-ended and fixed alternative versions of the intrapersonal agenda were not strongly correlated in the aggregate: only 0.57 using Spearman's rho. This weakness indicated that while the two authors did not find any difference between intrapersonal and interpersonal agendas, they did find a difference between open-ended and fixed alternative measures of intrapersonal agendas.

The findings of McCombs and of Semlak and Williams raise two perplexing questions. First, why are intrapersonal and interpersonal agendas similar in the aggregate, but different at the individual level? If the intrapersonal and interpersonal distinction is useful, and if the agendas are being measured consistently, differences between intrapersonal and interpersonal agendas would be expected at both the aggregate and individual levels. Alternatively, if the intrapersonal and interpersonal distinction is not useful, and if agendas are being measured consistently, no differences would be expected between the intrapersonal and interpersonal agendas at either the aggregate or individual levels. However, since differences appeared at one level, but not at the other level, some accounting must

be made of why such differences occured.

The second perplexing question is more of a technical matter. If open-ended and fixed alternative questions are measuring the same concept, why did the two different techniques produce two different intrapersonal agendas for Semlak and Williams? Again, if the agendas were being measured consistently, the agendas produced by different methods would be expected to be similar. But since the open-ended intrapersonal agenda differed from the fixed alternative personal agenda, another accounting must be made of why such discrepancies occured.

In an attempt to account for these discrepancies, the following four research hypotheses were examined:

H_1: Intrapersonal issue agendas will be significantly different from interpersonal issue agendas at the individual level.

H_2: Intrapersonal issue agendas will be significantly different from interpersonal issue agendas at the aggregate level.

H_3: Individual responses to open-ended measures of personal issue agendas will be significantly different from individual responses to fixed alternative measures of personal issue agendas.

H_4: Aggregate responses to open-ended measures of personal issue agendas will be significantly different from aggregate responses to fixed alternative measures of personal issue agendas.

If the first hypothesis holds, then the distinction between intrapersonal and interpersonal agendas can be considered viable. If this distinction is viable, then the second hypothesis will be expected to hold. If, however, the distinction between intrapersonal and interpersonal issue agendas is not viable, then neither of the first two hypotheses will be expected to hold.

If, however, the first hypothesis holds (indicating differences between intrapersonal and interpersonal issue agendas on the individual level), but the second hypothesis does not (indicating no difference on the aggregate level), then questions must arise concerning the techniques related to the aggregated data. Either the techniques for aggregating the data are not appropriate, or the techniques for comparing the aggregated data are not appropriate.

Additionally, whether or not hypotheses one and two hold, questions related to hypotheses three and four remain pertinent. If the third hypothesis holds, then arguments can be made that the technique used affects the measurement of personal agendas. If the technique used affects the measurement of personal agendas, then the fourth hypothesis will also be expected to hold, again indicating the effect of the technique used on the agenda measured. If any other combination of these hypotheses holds, specific explanations, particular to the data set at hand, will be required.

Method

To test the research hypotheses, a survey questionnaire was administered to a random sample of 302 male, Sophomore dormitory residents at a large Northeastern university by students in a graduate research methods class during Fall, 1973. This group was chosen because it was expected to be relatively homogeneous and reasonably well-informed on the issues to be measured (McCombs, 1974). Homogeneity was important because the study was designed to measure distributions of selections across measures rather than across population groups. The homogeneous population was used to emphasize variation across measures rather than across respondents.

On the basis of a pre-test, four issues were selected for examination: Watergate, the Mideast situation, Rising Prices, and Energy/Environment.

These issueswere selected because the respondents could be expected to be sufficiently familiar with the issues so that they could make consistent discriminations among them, minimizing the potential bias of selection from less salient issues.

This combination of a highly homogeneous population and a low number of salient issues could be expected to provide a consistent distribution that would reflect only the effects of the various measurement techniques on the recording of the population's agendas. These effects could then be examined to determine if the measures were functioning in a similar fashion across the same population and the same issues.

The issue agendas were operationalized by asking respondents which issues were most important to them personally (intrapersonal) and which issues they had talked about most with other people during the past month (interpersonal) (McCombs, 1974). Responses to these questions were gathered using open-ended questions, paired comparisons, and seven-point semantic differentials.

The open-ended questions were administered to all of the respondents to gather the complete range of unique response to the questions so that the two alternatives could be compared against the unique responses. Because of time and budgetary considerations, however, all possible combinations of fixed alternative techniques and intrapersonal/interpersonal agendas could not be administered to all of the respondents. Instead, the fixed alternative questions were crossed so that the structural selections on one format for one type of personal agenda could not be carried over directly into selections for other types of personal agenda. For example, if a respondent was asked a series of paired comparisons on his or her intrapersonal issue agenda, that same respondent was asked a series

of semantic differentials on his or her interpersonal issue agenda.

The result of this crossing of the question structures was to produce two basic versions of the questionnaire. Both versions of the questionnaire asked open-ended questions for intrapersonal and interpersonal issue agendas. But one version of the questionaire also used paired comparisons for the intrapersonal issue agenda and semantic differentials for the interpersonal issue agenda. The other version used semantic differentials for the intrapersonal issue agenda and paired comparisons for the interpersonal issue agenda. The two forms of the questionnaire were randomly assigned to the respondents on the basis of equiprobability.

The two forms of the questionnaire meant that all of the respondents were comparable only across the open-ended questions. The fixed alternative questions became assigned to random sub-groups along both intrapersonal and interpersonal issue agendas, and along paired comparison and semantic differential measurements. Because the measurement techniques differed for each sub-group of respondents, any comparability within intrapersonal or interpersonal issue agendas would be expected to be a result of the issues themselves, and not of the particular measuring technique involved.

Analysis

To examine the first research hypothesis, responses to the open-ended questions were grouped whenever possible into the four main categories identified by the pre-test. These four categories proved to be the four largest single categories, and the remaining issues were combined into a single generalized category to indicate their presence, but not their varied meanings. These data were crosstabulated to compare the intrapersonal issue agenda with the interpersonal issue agenda on the individual

level.

TABLE ONE ABOUT HERE

Table One provided strong support for the first hypothesis. The intrapersonal and interpersonal issue agendas of the respondents were significantly different (χ^2 = 153.59; df = 16; $p \leq 0.001$) at the individual level. In terms of the marginals, Watergate was named as the most important issues intrapersonally by 119 respondents (43.6%), but it was named the most important issue interpersonally by 188 respondents (68.2%). Conversely, Prices, Energy, and other issues were named as the most important intrapersonally (11.7%; 9.5%; and, 15.8%, respectively), but fell off when mentioned interpersonally (3.3%; 1.8%; and, 6.6%, respectively). Only the Mideast situation remained stable: it was mentioned by 19.4% as most important both intrapersonally and interpersonally. Except for the Mideast, the marginal figures indicated differences between intrapersonal and interpersonal issue agendas.

This difference was reinforced when the cells themselves were considered. Overall, only 54.6% of the respondents named the same issue as both intrapersonally and interpersonally most important to them. The remaining 45.4% of the respondents fell off the main diagonal, naming different issues as intrapersonally and interpersonally most important. This discrepancy, summarized by Cramer's ϕ' (phi-prime; Hays, 1973) of 0.375, indicated that the intrapersonal and interpersonal issue agendas were only 37.5% related at the individual level. Based on this data, the first hypothesis can be accepted, and the distinction between intrapersonal and interpersonal agendas can be retained at the individual level.

TABLE TWO ABOUT HERE

Since the first hypothesis was supported, the study next considered the second hypothesis to determine if the distinction between intrapersonal and interpersonal was retained at the aggregate level. Table Two indicates that, in terms of aggregates, the intrapersonal and interpersonal agendas are highly similar. Since the rank orders of the issues based on total selections were identical, calculation of rank order statistics of association like Spearman's rho would be trivial. Calculation of Pearson's product-moment coeffecient yielded a solution that appeared to indicate a strong (+0.995) and significant ($p \leq 0.001$) association between the intrapersonal and interpersonal issue agendas, replicating the findings of McCombs (1974) and of Semlak and Williams (1977). However, such a statistic is misleading because it indicates association between variable totals rather than between the variables themselves.

A more useful indication of the relation among the variables was Cramer's ϕ', which was calculated when the individual level was discussed. Cramer's ϕ' indicates the relative predictability of cells within a contingency table based on knowledge of the marginal totals (see Hays, 1973, pp. 744-745). Since the marginals are, in fact, the aggregate agendas, Cramer's ϕ' yielded a more appropriate reading of their relations than did Pearson's product-moment correlation coeffecient. This latter statistic is based on the number of mentions, without regard to the combinations in which those mentions were made.

Using Cramer's ϕ', the aggregate agendas listed in Table Two can be seen as related at 0.375 rather than at 0.995. This lower level of association not only makes sense in terms of the individual level's varied

cells, which were shown in Table One; it also makes sense in terms of the totals presented at the aggregate level. In Table Two, the large discrepancies between the intrapersonal and interpersonal selections of Watergate (43.6% and 68.9%); Prices (11.7% and 3.3%); Energy (9.5% and 1.8%); and the remaining, varied selections (15.8% and 6.6%) lent themselves to an intuitive interpretation of the differences for these four issues. A value of 0.995 for Pearson's product-moment corelation coeffecient would not support such an intuitive interpretation; however, the value of 0.375 for Cramer's ϕ' would. A possible interpretation of this situation would be that the aggregating method of totalling selections, then correlating the totals, does not yield an appropriate measure of aggregate agendas. Instead, a more useful solution is to use Cramer's ϕ' to indication the relation between the aggregations of the marginals. By using this latter distinction, the notion of the separateness of intrapersonal and interpersonal issue agendas can be retained, and a more appropriate level of strength assigned to their relationship.

Since the first hypothesis was supported directly, and since the second hypothesis was supported through a refinement of the techniques used to measure the relation, the distinction between intrapersonal and interpersonal issue agendas was retained through the rest of the study. This distinction meant that both the third and fourth hypothesis had to be examined for both intrapersonal and intepersonal issue agendas.

The third hypothesis was examined by comparing the most important issue selected on the open-ended questions with selections based on paired comparisons and semantic differentials. Because all possible combinations of intrapersonal and interpersonal issue agendas and of paired comparisons and semantic differentials could not be administered,

the study was forced to consider four distinct sub-groups: persons who responded to (1) intrapersonal paired comparisons; (2) intrapersonal semantic differentials; (3) interpersonal paired comparisons; and, (4) interpersonal semantic differentials.

In terms of contingency table analyses, the four sub-groups, combined with the four major issues under consideration, mandated the generation of twenty contingency tables if all the possible combinations of measurement techniques and intrapersonal/interpersonal distinctions were to be exhausted. Since such a large number of tables would expand this study to prohibitive dimensions, an alternative method was selected to examine the relations implied by the third hypothesis.

To open up the analysis to more powerful and flexible statistical techniques, both the open-ended questions and the paired comparisions were transformed to interval variables through the use of dichotomous coding (Winer, 1971, pp 303-305). In dichotomous coding, a variable is given a score of one if the attribute being measured is present, and zero if it is not present. For the open-ended questions, issue variables were created for the four main variables (Watergate, Mideast, Prices, Energy), and scored one if the respondent selected it as the most important issue, zero if he or she did not. For the paired comparisons, six nonredundant issue pairings were used as variables. For example, Watergate was coded as one and the Mideast as zero to create the initial nonredundant pair: Watergate selected over Mideast (abbreviated Watergate/Mideast). The next nonredundant pair was: Watergate chosen over Prices (abbreviated Watergate/Prices). Following this procedure, the following six pairs were developed: (1) Watergate/Mideast; (2) Watergate/Prices; (3) Watergate/Energy; (4) Mideast/Prices; (5) Mideast/Energy; and, (6) Prices/Energy.

Note that the first issue in each pairing is the issue selected over the second issue in the pairing. The pairs were then coded with a one if the respondent selected the first issue in the pair, and with a zero if the second issue was chosen.

Since semantic differentials produce interval data (Kerlinger, 1973, pp. 570-571), and since transformation of the semantic differentials would have proved cumbersome and would have exceeded the capacity of the computer programs available to the researcher, the values of the semantic differentials were coded from one (very low) to seven (very high). Although such coding increased the possibility of heterogeneity of variance, the seven value code was retained under the expectation that if the semantic differentials were discriminating adequately among issues, the differences in coding magnitude could be overcome by the strength of the issue relations.

Additionally, the 44 respondents (16.1%) who named an issue other than the four major issues were retained in the study to serve as a control group. Since these respondents named different issues as intrapersonally or interpersonally most important, their responses to the fixed alternative questions would be expected to reinforce the notion of agenda-setting within the questionnaire itself. The presence of these respondents to whom the pre-tested issues did not apply would be expected to increase any agenda-setting effect related to the fixed alternative questions. If an agenda-setting effect cannot be found with this group included, then it is even less likely to be found with the group excluded.

In terms of the dichotomous coding of the open-ended issue variables, inclusion of this control group was straightforward: since the group had received codes of zero for all four major issues, they actually formed

a nonredundant fifth issue variable: an implied, dichotomously coded variable for the Other category. Such implied variables are most commonly lumped into the variance left unexplained by statistical analyses, and are not commonly discussed (see Kerlinger and Pedhazur, 1973, pp. 117-121). Codings for the paired comparisons and semantic differentials were the same for this grouping as for the four major issue groupings.

When the variable$^{5}_{A}$ were transformed, the resulting data were factor analyzed using version six of the Statistical Package for the Social Sciences (SPSS) (Nie, Bent and Hull, 1970). The specific factor analytic techniques used was principal components with orthogonal, varimax rotation. Since principal components assumes values of 1.00 in the diagonal of the initial correlation matrix (Harman, 1967), an eigenvalue of 1.00 was considered the minimum for including a specific factor. For the sake of convenience, the interpersonal measures, which produced six factors, will be discussed before the intrapersonal measures, which produced five factors, will be discussed.

TABLE THREE ABOUT HERE

Interpersonal issue agendas. Table Three shows the factor analytic solution related to open-ended, paired comparision, and semantic differential measurements of interpersonal agendas. Using a minimum eigenvalue of 1.00 for inclusion, six factors were produced.

As expected, the first factor loaded highly on the semantic differentials. Because of the seven values used for these measures, as opposed to the single values used for the other measures, the semantic differentials loaded strongly among themselves. However, few, if any, other variables even remotely approached loading on the initial factor. Although the

loading of the semantic differentials can be explained technically as the coding of the measures, the single loading also highlighted an important difference related to semantic differetnials: the ability of respondents to assign high ratings to all of the issues.

Since the semantic differentials could have allowed the respondents to assign high ratings to all four major issues, a very real possibility existed that the respondents did not discriminate among the possibilities and rated all the issues highly. The respondent could have rated all four issues as high because he or she regarded them all as important relative to other unspecified issues, even though the selected issues could have differed in importance to those individuals had they been forced to rank the issues. Indeed, this perspective could have received at least tenuous support from the initial factor: since all of the semantic differentials loaded strongly and in the same direction on the same factor, they could be intuitively explained as all being important. Since all four issues could be important to the respondents, the semantic differentials could have served to discriminate only between the very important issues and the much less important issues. An effective, but unavailable, check would have been to present many more issues of widely varying importance to determine if the semantic differentials would discriminate between the four major issues and several issues of lesser importance. In general, semantic differentials can be viewed as generating both technical and conceptual problems which require further and more systematic exploration.

The second interpersonal factor presented a much more interpretable situation. In this factor, the three paired comparisons related to Watergate loaded strongly and in the same direction: Watergate/Energy (+0.88);

Watergate/Prices (+0.81); and, Watergate/Mideast (+0.52). Additionally, the open-ended selection of Watergate also demonstrated some strength and the same direction (+0.31). Although interpreting the directionality of factor loadings is a risky business, the generally strong and positive loadings of the Watergate variables on this factor lent credence to an intuitive interpretation of the second interpersonal factor as primarily based on selection of Watergate as the most important issue.

Another factor which lent itself to an intuitive interpretation was interpersonal factor four. This factor had strong positive loadings on selection of the Mideast situation as the most important issue. Strong and positive coeffecients were found for two paired comparisons -- Mideast/Prices (+0.83) and Mideast/Energy (+0.80) -- and a strong negative coeffecient was found for the paired comparison where a reversal would be expected intuitively: Watergate/Mideast (-0.53). These coeffecients, when combined with a moderate, positive coeffecient for open-ended selection of the Mideast (+0.14), also lent themselves to interpreting the factor as based on the selection of the Mideast as the most important issue.

Two other interpersonal factors -- five and six -- also lent themselves to intuitive notions of issue-related factors. Factor five loaded highly on the open-ended selection of Energy (+0.84) as the most important issue. This finding received only weak support from the paired comparisons, however. Although both Prices/Energy (-0.25) and Mideast/Energy (-0.12) achieved the appropriate intuitive directionalities, their lower magnitude, combined with a weak positive relation of Watergate/Energy (+0.02) made interpersonal factor five less persuasive than factors two and four. Similarly, interpersonal factor six, although it loaded strongly on Prices/

Energy (+0.84) and open-ended selection of Prices (+0.62), was not as easily interpretable as a Price factor because of weaker loadings on Mideast/Prices (-0.26) and Watergate/Prices (-0.19). Generally, however, factors five and six lent at least some support to the notion of an interpersonal factor for each major issue.

The notion was somewhat disrupted, however, by the presence of interpersonal factor three. This factor loaded highly on Mideast and Watergate, but in different directions (+0.92 and -0.81, respectively). This loading of the open-ended selections, combined with extremely low loadings for virtually all of the other measures, indicated that the notion of a single factor for each individual issue was not completely viable. The presence of this unusual factor indicated the presence of some other relation that did not involve all of the issues, but that was somehow related only to open-ended selections of Watergate and the Mideast. The tenuousness of this latter factor made the notion of simple issue-related factors seem even more tenuous.

Intrapersonal issue agendas. Table Four shows the factor analytic solution related to open-ended, paired comparison, and semantic differential measurements of the intrapersonal agenda. Using a minimum eigenvalue of 1.00 for inclusion, five factors were produced.

TABLE FOUR ABOUT HERE

Structurally, the five intrapersonal factors bore strong resemblances to five of the interpersonal factors. The initial intrapersonal factor also loaded heavily on the semantic differentials alone; again raising the difficulties related to the use of semantic differentials that have been discussed above. Similarly, intrapersonal factors two, three, and

four produced solutions which could be interpreted as issue-related.

Intrapersonal factor two produced strong and directional loadings on Watergate/Prices (+0.80), Watergate/Energy (+0.77), and open-ended selection of Watergate (+0.59). These loadings, despite the weakening effect of a lower loading on Watergate/Mideast (+0.35) and a peculiar negative loading on the open-ended selection of Prices (-0.60), lent themselves to an intuitive interpertation of a Watergate factor.

Similarly, intrapersonal factor three produced an intuitive interpretation of a Mideast factor. Strong loadings on Mideast/Prices (+0.82) and Mideast/Energy (+0.57), an intuitively expected reverse on Watergate/Mideast (-0.70), and a weak loading on the open-ended selection of the Mideast (+0.19) pointed toward an issue-related factor. Only the peculiar loading of Price/Energy (-0.56) mitigated the strength of the interpretation.

Intrapersonal factor four presented a mixture of both Prices and Energy. However, the positive loadings of Price/Energy (+0.57) and open-ended selection of Prices (+0.54) argued for an intuitive distinction from Energy, which developed a negative loading (-0.81) on the open-ended selection of the issue. Although these two issues formed two factors when considered interpersonally, their distinction on the single intrapersonal factor made the separation of the two issues acceptable on an intuitive basis.

Finally, the intrapersonal measures also produced the peculiar distinction between open-ended selections of Mideast and Watergate (+0.90 and -0.59, respectively). The recurrence of this distinction further underlined the importance of expecting some peculiar differences based on

the open-ended selection of these particular issues. While the importance of this distinction was not immediately apparent on the individual level, the presence of this relationship in both interpersonal and intrapersonal agendas served as a warning flag for subsequent analyses.

Because of the peculiarities related to the use of semantic differentials (interpersonal factor one and intrapersonal factor one) and to the open-ended selection of Watergate and the Mideast (interpersonal factor three and intrapersonal factor five), acceptance of the third hypothesis must be suspended until additional and more extensive studies can be mounted to explore the use of open-ended and fixed alternative techniques at the individual level. Although some intuitive evidence was found for factors based on issues, the presence of the two contaminating factors precludes acceptance of the hypothesis until further work is completed.

TABLE FIVE ABOUT HERE

Because of the difficulties related to the third hypothesis, the study also examined the fourth hypothesis to determine if the complications related to the third hypothesis had any impact on the aggregate agendas needed for the fourth hypothesis. Table Five displays the aggregate agendas related to each of the three measurement techniques used in this study. The agendas for the open-ended questions are percentages based on the marginals of the responses reported in Table Two. The agendas for the paired comparisons were calculated using the technique presented by Edwards (1957). The agendas for the semantic differentials were based on the average ratings, which were calculated by multiplying the respective values of the seven steps by the number of respondents in each category,

summing the resultant products, and dividing by the total number of respondents.

As far as the interpersonal issue agendas are concerned, the technique of measurement appeared to make no difference as far as the rank order of the issues was concerned. For all three techniques, Watergate was ranked first, followed by the Mideast, Prices, and Energy. Indeed, the only noteworthy difference was that, despite the great distance between Watergate (68.9%) and the Mideast (19.4%) for the open-ended format, the difference between the two issues was much closer when paired comparisons (0.913 and 0.900, respectively) and semantic differentials (5.31 and 5.29, respectively) were used. The relative closeness of the issues for the fixed alternative questions lent some credence to the notion that the structured questions could have increased the salience of the Mideast issue and to the notion that the respondents rated several issues highly when given the opportunity.

The plausibility of the latter explanations became even stronger when the intrapersonal issues were considered. The rank ordering which characterized the interpersonal issues was retained only by the open-ended intrapersonal issue agenda. This difference between intrapersonal and interpersonal agendas was discussed earlier in this study, and the notion that aggregating these issues in a segregated fashion ignores the interactive nature of intrapersonal and interpersonal issue agendas still applies.

The importance of this distinction was highlighted when the intrapersonal rank orderings produced by the paired comparisons and semantic differentials were examined. Both techniques produced a radically different rank ordering: the Mideast moved to first using both fixed alternative techniques, followed in order by Watergate, Energy, and Prices. In effect,

the use of fixed alternative questions inverted the ordered relations between Watergate and the Mideast, and between Prices and Energy.

These reversals gave renewed life to the difficulties raised in regard to the third hypothesis. Had all three of the techniques produced the same rank ordering, the idea that all three techniques measure concepts in relatively the same way would have been viable. However, the emergence of different intrapersonal rank orderings for the fixed alternative questions revivified the problem of agenda-setting within the questionnaire itself.

At least three plausible explanations could be related to the shifts in the issue orderings. The first explanation would be that the mention of the issues themselves by the fixed alternative questions alerted the respondents to these issues, increased the saliences of these issues, and resulted in inflated estimations of the importance of these issues. This explanation could account for the difference between the open-ended intrapersonal agenda and the fixed alternative intrapersonal agendas.

A second plausible explanation would be that the methods of aggregating the data to determine the rank orderings helped to inflate the scores of some issues, causing unexpected reversals in the rank orderings. This explanation would be plausible in light of the notion that respondents could give high rankings to several issues when semantic differentials are used. This explanation could also be extended to paired comparisons through the argument that forcing choices on less important issues inflated the ratings of some more important issues. For example, a proponent of this point-of-view could argue that persons whose most important issue was Prices or Energy could have inflated the scores of the Mideast issue by choosing that issue when confronted with the choice available in

the Watergate/Mideast paired comparison.

The third plausible explanation would be that the presentation of the issue in fixed alternative format clarified the available issues for the respondents and that the issue reversals of two of the rankings reflected the true sentiments of the respondents. Such a point-of-view would contend that the open-ended technique was sufficiently ambiguous to limit respondent choices to domestic issues, and that the addition of fixed alternatives permitted the respondents to include international issues in their replies.

Given the plausibility of alternative explanations to account for reversals among intrapersonal aggregate agendas, and given the ambiguity of relations among the different measures at the individual level, acceptance of the fourth hypothesis must be suspended, pending further investigation. Although the three different techniques appeared to work well for interpersonal issue agendas, the complexities related to the measurement of intrapersonal issue agendas did not permit unreserved acceptance of the fourth hypothesis.

Conclusions

Based on the limited data set available, this study can conclude that differences between intrapersonal and interpersonal issue agendas exist on both the individual level (hypothesis one) and the aggregate level (hypothesis two). The difference on the aggregate level, however, was based on the use of contingency table marginals and Cramer's ϕ' coeffecient of association rather than on the more frequently used total mentions and Pearson's product-moment correlation coeffecient.

In comparing the use of open-ended and fixed alternative questions, however, this study cannot reach clear-cut conclusions. Although some

replication of existing judgements was found, acceptance of the similarity of the three techniques of measurement used in this study must be suspended until the contention can be tested further. Specifically, systematic research needs to address such questions as the agenda-setting effect of fixed alternatives within the questionnaire itself; the appropriateness of aggregating techniques; and, the existence of distinctions between domestic and international issues. Although such questions appear tedious relative to the more exciting conceptual questions of agenda-setting, the answers to these mundane questions of measurement cannot help but to enhance and refine the existing conceptualizations of agenda-setting.

Table 1

Open-ended Selection of Most Important Issue

	Intrapersonally:					
	Water-gate	Mid-east	Prices	Energy	Other	(Total)
Interpersonally:						
Watergate	83.2%	52.8%	62.5%	73.1%	51.2%	(68.9%)
Mideast	11.8%	47.2%	21.9%	15.4%	7.0%	(19.4%)
Prices	2.5%	zero	15.6%	zero	2.3%	(3.3%)
Energy	1.7%	zero	zero	11.5%	zero	(1.8%)
Other	0.8%	zero	zero	zero	39.5%	(6.6%)
(n)	(119)	(53)	(32)	(26)	(18)	273

$\chi^2 = 153.59$; df = 16; $p \leq 0.001$

Table 2

Open-ended Aggregate Issue Agendas

	Intrapersonally:	Interpersonally:
Issues:		
Watergate	43.6%	68.9%
Mideast	19.4%	19.4%
Prices	11.7%	3.3%
Energy	9.5%	1.8%
Other	15.8%	6.6%
(n)	(273)	(273)

Pearson's product-moment correlation coeffecient = +0.995 ($p \leq 0.001$)

Table 3

Factor Analysis of Interpersonal Measures

	Factors:						
	1	2	3	4	5	6	(h^2)
Open-ended questions:							
Watergate	-0.03	+0.31	-0.81	+0.07	-0.42	-0.06	(0.93)
Mideast	0.00	+0.06	+0.92	+0.14	-0.20	-0.13	(0.97)
Prices	+0.03	-0.42	+0.04	-0.02	+0.30	+0.62	(0.65)
Energy	+0.01	+0.11	+0.02	-0.11	+0.84	-0.10	(0.74)
Paired comparisons:							
Watergate/Mideast	-0.16	+0.52	-0.28	-0.53	+0.11	-0.08	(0.67)
Watergate/Prices	0.00	+0.81	0.00	+0.05	+0.06	-0.19	(0.71)
Watergate/Energy	-0.02	+0.88	-0.05	+0.12	+0.02	+0.17	(0.83)
Mideast/Prices	0.00	-0.01	-0.03	+0.83	+0.04	-0.26	(0.75)
Mideast/Energy	-0.05	+0.22	+0.08	+0.80	-0.12	+0.14	(0.73)
Prices/Energy	+0.01	+0.11	-0.13	-0.06	-0.25	+0.84	(0.80)
Semantic differentials:							
Watergate	+0.96	-0.03	+0.02	-0.12	0.00	-0.05	(0.93)
Mideast	+0.88	-0.02	+0.04	+0.07	-0.20	+0.02	(0.82)
Prices	+0.70	-0.09	-0.01	+0.03	+0.47	+0.27	(0.54)
Energy	+0.52	+0.05	+0.36	+0.10	+0.32	-0.16	(0.80)
Eigenvalues:	2.96	2.08	1.98	1.63	1.15	1.05	----
Percent of variance:	21.1%	14.9%	14.2%	11.6%	8.3%	7.5%	----
Cumulative percent:	21.1%	36.0%	50.1%	61.8%	70.1%	77.6%	----

Table 4

Factor Analysis of Intrapersonal Measures

	Factors: 1	2	3	4	5	(h^2)
Open-ended questions:						
Watergate	-0.08	+0.59	-0.01	+0.18	-0.59	(0.73)
Mideast	-0.10	+0.07	+0.19	+0.07	+0.90	(0.86)
Prices	+0.07	-0.60	-0.02	+0.54	-0.20	(0.71)
Energy	+0.16	-0.24	-0.17	-0.81	+0.01	(0.77)
Paired comparisons:						
Watergate/Mideast	-0.07	+0.35	-0.70	-0.02	-0.30	(0.71)
Watergate/Prices	-0.02	+0.80	+0.12	+0.04	-0.10	(0.65)
Watergate/Energy	+0.13	+0.77	-0.02	+0.23	+0.07	(0.66)
Mideast/Prices	+0.03	+0.25	+0.82	+0.04	+0.02	(0.74)
Mideast/Energy	+0.15	+0.35	+0.57	+0.38	+0.29	(0.69)
Prices/Energy	+0.19	+0.08	-0.56	+0.57	+0.19	(0.73)
Semantic differentials:						
Watergate	+0.92	+0.06	0.00	+0.07	-0.07	(0.86)
Mideast	+0.87	0.00	-0.01	-0.08	+0.09	(0.76)
Prices	+0.91	-0.02	0.00	+0.15	-0.02	(0.85)
Energy	+0.86	+0.01	+0.10	-0.15	-0.05	(0.77)
Eigenvalues:	3.31	2.54	2.11	1.47	1.07	----
Percent of variance:	23.6%	18.2%	15.1%	10.5%	7.6%	----
Cumulative percent:	23.6%	41.1%	56.9%	67.4%	75.0%	----

Table 5

Aggregate Issue Agendas

Intrapersonal:			
Issues:	Open-ended (rank)	Pairs (rank)	Scales (rank)
Watergate	43.6% (1)	0.959 (2)	5.62 (2)
Mideast	19.4% (2)	1.111 (1)	5.67 (1)
Prices	11.7% (3)	zero (4)	5.18 (4)
Energy	9.5% (4)	0.863 (3)	5.23 (3)
(Other)	(15.8%) (n/a)	-----	----

Interpersonal:			
Issues:	Open-ended (rank)	Pairs (rank)	Scales (rank)
Watergate	68.9% (1)	0.913 (1)	5.31 (1)
Mideast	19.4% (2)	0.900 (2)	5.29 (2)
Prices	3.3% (3)	0.163 (3)	3.63 (3)
Energy	1.8% (4)	zero (4)	3.54 (4)
(Other)	(6.6%) (n/a)	-----	----

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Notes

[1] The author wishes to thank Dr. Maxwell McCombs, John Ben Snow Research Professor and Director of the Communications Research Center of the S. I. Newhouse School of Public Communications at Syracuse University, for access to the data set upon which this study is based. The author also wishes to thank Pushpa Prabhakar, University of Oklahoma, for her assistance in the preparation of the manuscript.